

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROLLER AND SIGNALS INCLUDING THE INSTALLATION OF VIDEO DETECTION AT THE INTERSECTION OF NB US 1 AND RAMP A FROM WB MD 32 IN HOWARD COUNTY. US 1 IS ASSUMED TO RUN IN AN NORTH/SOUTH DIRECTION.

INTERSECTION OPERATION

NORMAL OPERATION
THE INTERSECTION WILL OPERATE IN A NEMA-TWO-PHASE, FULLY ACTUATED MODE. THE MOVEMENTS ON NB US 1 WILL OPERATE CONCURRENTLY. THE MOVEMENTS ON RAMP A WILL OPERATE CONCURRENTLY. THE INTERSECTION CONTROLLER WILL INTERCONNECT WITH THE EXISTING CONTROLLER AT THE INTERSECTION OF US 1 AT GUILFORD ROAD.

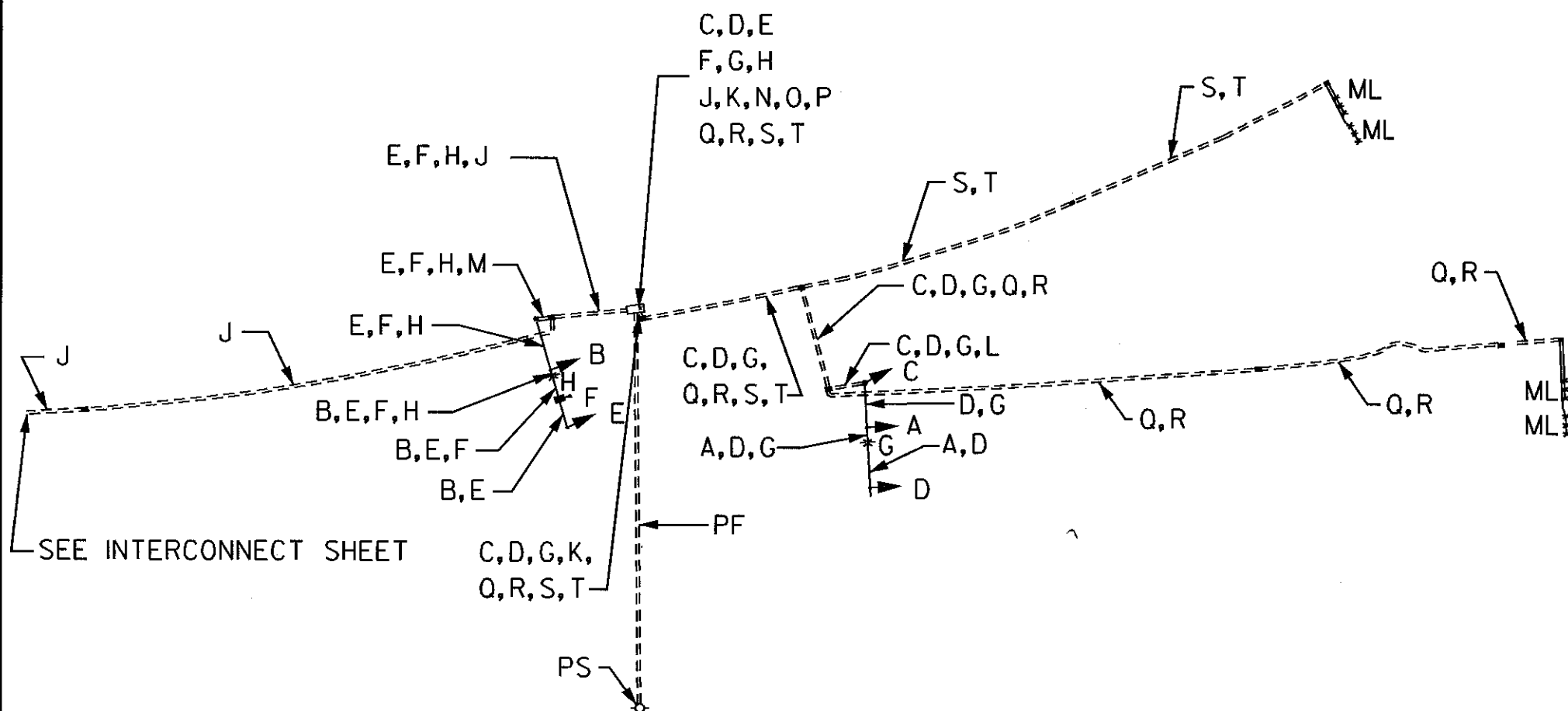
CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, SOLID STATE EIGHT PHASE CONTROLLER WITH SYSTEM PACKAGE, VIDEO RACK, TELEMETRY MODULE, ISOLATION BOARD AND SPECIAL RELAY HOUSED IN NEMA SIZE "5" BASE MOUNTED CABINET.

SPECIAL NOTE

ALL UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE BECAUSE THESE UTILITIES MAY BE MODIFIED PRIOR TO AND DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY.

WIRING DIAGRAM



EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
971017	816	1 EA.	EIGHT PHASE, FULL TRAFFIC ACTUATED SOLID STATE DIGITAL CONTROLLER WITH SYSTEM PACKAGE, HOUSED IN A NEMA SIZE "5" BASE MOUNTED CABINET
973023	813	16 S.F.	SHEET ALUMINUM SIGN TO CONSIST OF: -1 EA. R3-2 (36 IN. X 36 IN.) - MAST ARM MOUNT -1 EA. R10-1b (30 IN. X 30 IN.) - MAST ARM MOUNT

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #7 ARE AS FOLLOWS:

ROBERT SNYDER ASSISTANT DIVISION CHIEF
TRAFFIC OPERATION DIVISION
PHONE: 410-787-7631

DAVE COYNE
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: 301-624-8106

JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: 301-624-8141

JIM BUCKALEW
UTILITIES ENGINEER
PHONE: 301-624-8110

PHASE CHART

	1	2	3	4	5
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)
PHASE 2	G	G	R	R	R
2 CHANGE	Y	Y	R	R	R
PHASE 4	R	R	G	G	G
4 CHANGE	R	R	Y	Y	Y
FLASHING OPERATION	FL Y	FL Y	FL R	FL R	FL R

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
203030	205	2 C.Y.	TEST PIT EXCAVATION
585624	549	62 L.F.	24 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
801004	801	6 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
801104	812	168 L.F.	WOOD SIGN SUPPORTS 4 IN. X 4 IN.
801605	813	89 S.F.	SHEET ALUMINUM SIGNS
802501	810	83 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805011	805	52 L.F.	1 INCH ELECTRICAL CONDUIT - GALVANIZED SLEEVE (TRENCHED)
805032	805	30 L.F.	3 IN. U-GUARD - PVC RISER
805115	805	165 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
805135	805	1106 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
810010	810	50 L.F.	ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 AWG)
810555	810	7 EA.	MICROLOOP PROBE, 1000 FT LEAD IN CABLE
811001	811	11 EA.	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	813	16 S.F.	INSTALL OVERHEAD SIGN
816001	816	1 EA.	VIDEO DETECTION CAMERA
816005	816	1 EA.	CONTROL CABLE, 250 FT, VIDEO DETECTION CAMERA TO CONTROLLER
818030	818	2 EA.	STEEL POLE WITH A SINGLE 38' MAST ARM
821003	821	2 EA.	BREAKAWAY BASE SUPPORT SYSTEM FOR SIGNAL STRUCTURE
822002	810	987 L.F.	12-PAIR COMMUNICATION CABLE, JELLY FILLED (UNDERGROUND)
831010	806	2 EA.	250 WATT HPS LAMP AND LUMINAIRE
837001	804	6 EA.	GROUND ROD - 3/4 IN. X 10 FT. LENGTH
860272	814	9 EA.	12 IN. TRAFFIC SIGNAL HEAD SECTION
860274	814	6 EA.	12 IN. OPTICALLY PROGRAMMED TRAFFIC SIGNAL HEAD SECTION
861107	810	242 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	810	344 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	810	307 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
862102	815	163 L.F.	SAW CUT FOR SIGNAL (MICROLOOP DETECTOR)
866104	808	2 EA.	20 FT. LIGHTING ARM ON SIGNAL STRUCTURE
871201	816	1 EA.	INSTALL CONTROLLER AND CABINET - BASE MOUNT

EQUIPMENT LIST "C"

C. REMOVE AND DISCARD
QUANTITY
NONE

EQUIPMENT LIST "D"

D. REMOVE AND DELIVER TO SHA/OOTS
QUANTITY
NONE



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET

US 1 AT MD 32 RAMP A

THE WILSON T. BALLARD CO.
CONSULTING ENGINEERS
OWINGS MILLS, MARYLAND

DRAWN BY: STB	F.A.P. NO. H08275176	SEE TITLE SHEET	TS NO. TS-4181-2	SHEET NO.
CHECKED BY: NONE	COUNTY: HOWARD		T.I.M.S. NO. F 089	21 OF 31
DATE: MAY 2002	LOG MILE: 03.15			